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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/675,131

09/30/2003

Byong-Jun Jang

1650-8

1648

7590

10/18/2004

Galgano & Burke
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EXAMINER

EASTHOM, KARL D

ART UNIT

PAPER NUMBER

2832

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/675,131	Applicant(s) JANG, BYONG-JUN	
	Examiner Karl D Easthom	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enomoto et al. in view of Stoffel ((WO95/35577) and Gruhn. Enomoto discloses, except the material of barium titanate, and the rivet, the claimed invention at Fig. 1, with casing 1, PTC element 22, electrodes 27a, 27b, insulation holder 35, tap terminals 46, spring terminals 43, 38, weak portion 38 for fusing at Fig. 4, with cap 32, having walls 48a, 48b and holes 51a, 51b. Enomoto discloses at col. 4, lines 5-25, a ceramic PTC thermistor, that is standard in the art, see cols. 1-2, and must be fused due to excessive temperatures, while Stoffel discloses that is preferable at the abstract to employ for a similar ceramic PTC fused thermistor, the barium titanate material, so that it would have been obvious to employ the standard ceramic PTC barium titanate thermistor since that is the well known PTC material for such thermistors. As to the rivet, Gruhn discloses rivets 9,10 for joining spring and tap terminals for a PTC device similar to the Enomoto device which employs spot welding at col. 5, lines 60-65, for example, for joining different parts of PTC terminals, so that it would have been obvious to employ the rivet in place of the welding for joining parts, or to employ a rivet to join parts where making separable out of integral parts would have been obvious given the different metal portions joined in different ways In claim 10, the weak portion is the thin part of 38 that does not come into contact since all of 38 does not

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make contact. In claims 11 and 12, 38 is angled and rounded to an extent at the end as seen at Fig. 4. In claim 13, and edge of 38 is cut out as seen at Fig. 11 where it is thinner at the end.

3. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gruhn in view of Enomoto et al. and Stoffel ((WO95/35577). Gruhn discloses, except the material of barium titanate, the electrodes, and the cap with two walls and holes, the claimed invention at Figs. 1-2, with casing 1, PTC element 3, insulation holder 2a, 2b, tap terminals 7a, 7b, spring terminals 5b with weak portion 8 for fusing at Fig. 4, see Figs. 11-12, with cap 32, having walls 48a, 48b and holes 51a, 51b, and rivets 9,10 joining spring and tap terminals. Enomoto discloses at Fig. 1, the standard cap 31 with holes for terminals having insulation walls for holding the PTC device col. 4, lines 5-25, a ceramic PTC thermistor, that is standard in the art, with electrodes 27a, 27b for connection thereto, see cols. 1-2, which must be fused due to excessive temperatures, while Stoffel discloses that is preferable at the abstract to employ for a similar ceramic PTC fused thermistor, the barium titanate material, so that it would have been obvious to employ the standard ceramic PTC barium titanate thermistor and housing and electrodes since that is the well known PTC material and standard for such thermistors. In claim 10, the weak portion 8 not the contact part of 5b. In claims 11 and 12, 5b is angled and rounded to an extent at the end as seen at Fig. 4. In claim 13, one edge of 8 cut makes the other edge weak, since the whole device is cut out at both edges and weak since it fuses.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Applicant's arguments filed 8/30/4 have been fully considered but they are not persuasive. Applicant argues that the window portions 61 do not meet the claim, but the portion 38 is not employed to meet the claim for the recited portion. It is noted applicant did not mention the rivet, but a new reference is employed to address that.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl D Easthom whose telephone number is 571 272 1989. The examiner can normally be reached on M-Th, 5:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached at 571 272 1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Karl D Easthom
Primary Examiner
Art Unit 2832

KDE